

**NADON KICKIN BULL RANCH GAME FARM
DECISION DOCUMENT**

MARCH 24, 1999

Game Farm Application and MEPA Review:

Montana Fish, Wildlife and Parks (FWP) received an application for a game farm license from Bradley Nadon on October 30, 1998 to construct a 20 acre elk game farm in Lincoln County, Montana. An amended application was received on November 20, 1998 from Bradley Nadon which included the following revisions: an exterior boundary setback, new northeast corner fencing location, and a new location and layout for quarantine and handling facilities. The proposed Kickin Bull Ranch Game Farm would be located approximately 6 miles southeast of Eureka, Montana.

The applicant proposes raising a maximum of 20 elk for breeding stock and antler production. Elk would be present on the site on a year-round basis, which is immediately adjacent to the applicant's residence. Habitat at the proposed site is open pastureland that is bisected by Mud Creek, a small perennial stream.

FWP contracted Maxim Technologies, Inc. (Helena) to assist in the preparation of a draft Environmental Analysis (EA). Together, we completed a draft EA pursuant to the Montana Environmental Policy Act (MEPA) and game farm statutes. This document was distributed for public review and comment on February 11, 1999 with comments accepted through March 4, 1999.

FWP received 7 written responses to the EA. Issues raised included risk of disease to wild populations (especially Chronic Wasting Disease), reduction of water quality in Mud Creek due to grazing and wallowing, inaccuracies in the EA regarding the size of the area and the amount of supplemental forage that will be necessary, effects on air quality and noise levels, the location of quarantine facilities, the inappropriate use of license dollars from sportsmen, the disposal of excess fecal material and waste feed, the necessity for proposed stipulations and the adequacy of Mud Creek for Bull Trout. The Department carefully considered the issues raised and printed a response to each in the Final EA.

Upon completion of the EA, it was determined that a full Environmental Impact Statement would not be required. No significant impacts from the proposed action were identified that could not be mitigated. A copy of the Final EA is attached.

Proposed Decision:

Based upon our review of the EA, the game farm license application file and the information noted below, FWP has determined that a license to operate the game farm in question will be issued. The issuance of this license is contingent upon approval of all fence construction, Department of Livestock approval of quarantine and handling facilities or plans, and the Licensee's adherence to the stipulations listed below. The Licensee will have 2 years from the date of this approval to complete all fence construction as submitted in his application. Changes from the application must be approved by FWP prior to implementation of modifications.

The Licensee must be in compliance with all game farm statutes, rules and regulations of Montana Fish, Wildlife and Parks and Department of Livestock. Current regulations are attached for the applicant's information, but it is the licensee's responsibility to keep up with any changes in the laws or regulations. The Licensee must also comply with the stipulations listed below.

With most game farms, there is a concern of disease transmission to wild populations and also genetic 'pollution', should wild and captive animals interbreed. Wild animals such as native elk, black bears, mountain lions and coyotes can be attracted to game farms due to the availability of food and potential breeding opportunities. Responsible management and adherence to FWP stipulations and regulations should reduce the risk of contact between wild game and captive elk to an acceptable level. The EA recommends additional measures which would assist in that effort.

The proposed game farm will exclude wildlife from using 19 acres of habitat. Given the size of the enclosure, the impact from the loss of habitat was not considered significant. However, the potential alteration of plant communities and the potential deterioration of critical fish or wildlife habitat were considered significant.

Any potential impacts on water quality not addressed herein can be mitigated by the applicants' compliance with the state's water quality standards and requirements. Point source discharges, which include operations qualifying as concentrated animal feeding operations, are regulated under Title 75, Chapter 5, Part 6 MCA, and ARM 16.20.1301, et.seq. and may require permits, especially if animal numbers result in significant loss of vegetation. Nonpoint source discharges are regulated under the prohibitions against the pollution and nondegradation of state waters (Title 75, Chapter 5, Parts 3 and 6, MCA and ARM 16.20.701 et. seq.). Nonpoint sources of pollution are considered non-significant sources of degradation where reasonable land, soil and water conservation practices are applied and existing and anticipated beneficial uses will be fully protected (ARM 16.20.713). The Department of

Environmental Quality has the authority to determine whether an activity satisfies these standards (ARM 16.20.709).

The accumulation of packed snow, windthrow, and other factors increases the risk of ingress and egress associated with nearly all game farms. The risks of disease transmission and genetic pollution due to ingress and egress are genuine issues. FWP requires the immediate notification of the ingress or egress of any game animal or predator of game animals in order to assess the adequacy of fencing requirements for this location. This should help to address problems early and may result in additional modifications to fence design.

The Department has the duty under the Montana Environmental Policy Act to conduct an additional environmental review if the action approved by the agency changes, subsequent to the agency's original approval, in a manner which has impacts substantially different from those which were reviewed in the original MEPA review (Ravalli County Fish and Game Association v. Montana Department of State Lands, 273 Mont. 371, 903 P.2d 1362 (1995)). For that reason, the Department provides notice that the MEPA review performed for the instant license application reviewed the impacts of a game farm with up to 20 elk. To the extent that the applicant hereafter increases the number of species of animals or makes other significant changes to the operation, a supplemental MEPA review must be conducted.

Required Stipulations and Mitigations:

The following stipulation is imposed by FWP for the Kickin Bull Ranch game farm and is designed to mitigate significant impacts identified in the EA to below the level of significance:

- (1) Monitor the game farm perimeter fence on a weekly basis and immediately after major snow, rain, and wind events to ensure fence integrity is maintained.

The following mitigation measures have been included by the game farm applicant as part of the Proposed Action, and are repeated here as required mitigations because of their importance in reducing potentially significant impacts to below the level of significance:

- (2) Grazing of domestic elk along the banks of Mud Creek and the fish pond will be controlled by one or more of the following mitigating measures: herd rotation, allowing only young animals to graze along the creek, limiting elk numbers, and/or electric fencing.

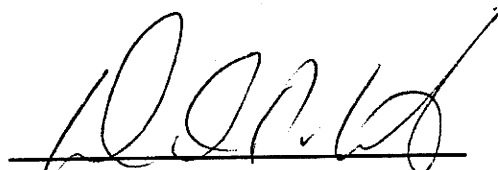
- (3) There will be no fee shooting by the public at the Nadon Kickin Bull Ranch game farm.

Recommended Mitigation Measures:

The following recommendations address minor impacts identified in the EA that are likely to result from the Proposed Action:

- Maintain a reasonable stocking rate in the game farm enclosure to minimize changes in soil structure and potential increases in runoff and erosion from disturbed ground. Reasonable stocking rates would also reduce the potential impacts from fecal matter and sediment in runoff water. A "reasonable stocking rate" is defined as the density of animals appropriate to maintain vegetative cover in pasture conditions that minimizes soil erosion from major precipitation events and snowmelt.
- Due to the potential for surface crusting, exposed soils should be revegetated promptly.
- Quickly incorporate waste into soil by plowing or discing. Spread waste during cool weather or in the morning during warm, dry weather.
- Properly dispose of animal carcasses according to county solid waste regulations. Carcasses and fecal matter should not be disposed of in or adjacent to water bodies, roads or ditches.
- Control surface water runoff from the proposed game farm site, if necessary, by employing best management practices (BMPs) where runoff could enter Mud Creek. The BMPs may include earth berms, straw bale dikes, vegetative buffer zones, and/or silt fences.
- Monitor the proposed game farm site for invasion of noxious weeds and treat infected areas in a timely manner by implementing a noxious weed control program.
- Provide supplemental feed and minerals to the elk on a seasonal basis to reduce excessive grazing on preferred pasture plants.
- Store any hay, feed and salt that may be used away from exterior fences or enclose in appropriate bear-resistant containers or buildings.

- Any feeding of game farm animals should be conducted at interior portions of the enclosure, away from water sources, and not along the perimeter fence. Due to the presence of both grizzly and black bears in this area, it is extremely important to limit the exposure of game farm animal feed to bears.
- During winters of exceptional snow cover, removal of snow on either side of the enclosure fence may be required to prevent ingress and egress.
- Stock a minimum number of bull elk to reduce bugling during the mating season.
- Stop work in the area of any observed archaeological artifact. Report discovery of historical objects to the Montana Historical Society; Historic Preservation Office (406) 444-7715. If work stoppage in the area containing observed artifacts is not possible, record the location and position of each object, take pictures and preserve the artifact(s).


 Daniel P. Vincent
 Regional Supervisor

3/24/99
 Date

 Bradley T. Nadon
 License Applicant

 Date

Please sign the document and return the original to FWP to indicate your concurrence with the license stipulations listed above. A copy of the signed decision will be provided to you for your records.

Mail to: Noemi Barta, MFWP Region One, 490 North Meridian Rd., Kalispell, MT 59901

NADON KICKIN BULL RANCH GAME FARM APPLICATION FINAL ENVIRONMENTAL ASSESSMENT

MONTANA ENVIRONMENTAL POLICY ACT (MEPA) PROCESS

Montana Fish, Wildlife & Parks (FWP) is required to perform an environmental analysis in accordance with MEPA for "each proposal for projects, programs, legislation, and other major actions of state government significantly affecting the quality of the human environment" [Administrative Rules of Montana (ARM) 12.2.430]. FWP prepares environmental assessments (EA) to determine whether a project would have a significant effect on the environment. If FWP determines a project will have a significant impact which cannot be mitigated to a minor impact, the agency will prepare a more detailed environmental impact statement (EIS) before making a decision. If the agency determines a proposed project will not have a significant impact, or the impact can be mitigated to minor or none, the agency may make its licensing decision based upon the results of the EA and criteria established under Montana game farm statute Montana Code Annotated (MCA) Title 87, Chapter 4, Part 4.

Mitigation measures may be considered in FWP's analysis as a means to reduce impact(s) of a game farm to a level below significance. FWP may also recommend mitigation measures to reduce impacts considered minor.

FWP prepared a Draft EA for the proposed Nadon Kickin Bull Ranch Game Farm which identified no significant impacts from the Proposed Action which could not be mitigated. The Draft EA was released for public review and comment February 11, 1999. Public comments were accepted through March 4, 1999. The Draft EA and this Final EA are hereby approved as the Final EA. This Final EA for the proposed development of the Nadon Kickin Bull Ranch Game Farm contains a summary of the Proposed Action, a description of the affected environment, and potential consequences of the Proposed Action, all of which are described in additional detail in the Draft EA, which is adopted in this Final EA. This document also describes mitigation measures, includes public comments, and provides the EA conclusion. The preferred alternative is the Proposed Action with one required stipulation imposed by FWP, two required mitigations proposed by the applicant, and several recommended mitigation measures.

PROPOSED GAME FARM APPLICATION

FWP received an application, dated October 22, 1998 from Bradley Nadon on October 30, 1998 to construct a 19-acre elk game farm in Lincoln County, Montana. An amended application was received on November 20, 1998 from Bradley Nadon which included the following revisions: an exterior boundary setback, new northeast corner fencing location, and new quarantine and handling facility location and layout. The proposed Kickin Bull Ranch game farm would be located approximately 6 miles southeast of Eureka, Montana. The applicant would live adjacent to the game farm year round.

The Proposed Action consists of placing up to 20 elk in the game farm year-round for providing breeding stock and antler production. Perimeter fence gates would remain locked at all times except when game farm animals are moved into or out of the enclosure, at which time the gates would be monitored to prevent ingress/egress. The fence would be constructed and wild animals would be removed from the game farm enclosure prior to issuance of the license by FWP.

The applicant would sell and dispose of captive elk in accordance with Montana game farm and disease control requirements stipulated in Montana statute and administrative rules. Fence construction would be completed in accordance with requirements of FWP under ARM 12.6.1533. Game farm fencing would be constructed with an 8-foot setback from the exterior fencing existing along the west and south property boundaries, with an 8-foot setback from the toe of the hill located in the northeast corner of the property, and with a 4-foot setback from the exterior fencing along the east property boundary. The game farm fence would consist of 8-foot high, 6-inch mesh, high-tensile big game fencing; supported by 11-foot long, 2^{3/8}-inch diameter steel pipe set 3 feet into the soil and spaced at 20-foot intervals. Corner posts and braces would be 2^{7/8}-inch diameter pipe and cemented in the ground. Culverts to be installed beneath the game farm fence where it crosses Mud Creek would have both ends covered with removable 1/2-inch diameter, 4-inch mesh rebar grating.

A total of two 8-foot high steel gates would be included in the perimeter fence. The gates will have a double-latch and single chain lock. A handling and quarantine facility would be constructed in the northwest portion of the game farm for purposes of handling and testing the elk; this would be constructed according to Montana Department of Livestock (DoL) standards. Several interior fences would be constructed to allow rotational grazing of the pastures. The Proposed Action includes an internal fence along the south side of Mud Creek, but not along the north side.

ALTERNATIVES

One alternative (No Action Alternative) is evaluated in this EA. Under the No Action Alternative, FWP would not issue a license for the Nadon Kickin Bull Ranch Game Farm as proposed. Therefore, no game farm animals would be placed on the proposed game farm area. Implementation of the No Action Alternative would not preclude other activities allowed under local, state and federal laws to take place at the game farm site.

AFFECTED ENVIRONMENT

The proposed game farm site lies at an elevation of approximately 2,800 feet in a broad, northwest-trending valley bounded by the Whitefish (Galton) Range on the east and the Salish Mountains on the west. Topography of the regional valley bottom is dominated by numerous lakes and northwest-trending hills of glacial till (drumlins). The game farm site consists of nearly level to gently sloping bottomland along Mud Creek and is surrounded by portions of the Kootenai National Forest and privately-owned forest land. Crop and pasture lands bound the site on the east and west and occur in a few patches in the surrounding area. Approximately 12 rural residences are located within 1 mile of the site.

Two landtype associations are present in the proposed game farm area: Typic Eutrochrepts in the north half and Typic Eutroboralfs in the south half. Both soils are formed in calcareous glacial till and are subject to moderate to severe soil erosion, respectively. Lime accumulations in both soils limits revegetation in areas where the lower part of the subsoil becomes exposed.

Surface water from the proposed game farm flows west through Mud Creek which consists of a relatively small, straight channel with a low gradient. Two man-made ponds exist on the site, one of which is connected to Mud Creek by a ditch as a flow-through system. After leaving the site, Mud Creek flows into Therriault Creek, which then flows into the Tobacco River, and finally discharges to Lake Koocanusa approximately 10 miles northwest of the game farm site.

An approximately 160-foot deep well located on the north side of the game farm site would supply water for the captive elk. Water from Mud Creek and the ponds would also be used to water the elk and for irrigation. Approximately 12 water supply wells are located within 1 mile of the site. Total depths of the wells range from 75 to 230 feet. Static water levels in the wells range from 35 to 186 feet below grade, although the depth to groundwater is typically about 50 feet. Several water rights for Mud Creek located upstream and downstream of the proposed game farm site are listed with the Montana Department of Natural Resources and Conservation.

The proposed game farm is comprised of irrigated cropland (10 acres) and non-irrigated cropland (9 acres). It is currently managed for hay production. Tame pasture (Timothy and red clover) has been planted in both the irrigated and non-irrigated land. The only remaining significant native vegetation in this area are sedges growing along the banks of Mud Creek. In addition, one medium-sized ponderosa pine tree is growing on a moderate slope in the northeast corner of the proposed game farm. There are no federally-listed threatened or endangered plant species expected to occur within the proposed game farm. The proposed game farm does contain suitable habitat for noxious weeds such as spotted knapweed, Canada thistle and mullein.

White-tailed deer inhabit the general area around the proposed game farm site, but the lack of vegetative cover on the proposed game farm site reduces deer habitat suitability. Estimated white-tailed deer density in this area is 10-20 deer per square mile with an increase in the winter months to 20-40 deer. In addition to white-tailed deer, the following animals also occur in the general area: elk, moose, mule deer, mountain lions, black bears, gray wolves, and grizzly bears. The latter two species are federally-listed as threatened. Some bald eagles are year long residents in this area (Kootenai/Tobacco Rivers), while other eagles are spring/fall migrants. The peregrine falcon is potentially migratory through this area. Both the bald eagle and peregrine falcon are federally-listed as threatened and endangered, respectively.

Captive elk may carry or become infected with a contagious wildlife disease or parasite such as tuberculosis, and then come in contact with wild deer, elk or other wildlife. Shooting of captive elk by the game farm operator would occur on a very occasional basis when necessary; no public fee shooting of elk would occur.

The proposed game farm site is located adjacent to and near Kootenai National Forest lands. These public areas offer access to outdoor activities such as hiking, skiing, camping, picnicking, hunting, photography, and wildlife viewing. General access to these areas is from private land or from county roads, namely the Fort MacLeod Trail Road.

CONSEQUENCES OF THE PROPOSED ACTION

Impacts to Soil Resources

The proposed game farm is expected to have only minor impacts to land and soil resources. The primary impact would be associated with the water erosion potential where soil becomes exposed. This situation could occur if the stocking rate causes bare ground to be exposed for an extended period of time. Increased soil erosion could result in additional sediment load to Mud Creek. The soil type along the creek (Typic Eutroboralfs, moraine) has a severe erosion potential.

Impacts to Water Resources

Placing up to 20 elk on about 19 acres has the potential to impact water quality in Mud Creek. Increased runoff and erosion could result from ground disturbances along the creek caused by the captive elk, particularly during snowmelt or major precipitation events. The streambanks would become unstable and erode into Mud Creek in areas frequented by captive elk seeking drinking water. The elk may also wallow in or near Mud Creek which would contribute to stream sedimentation. The internal fence proposed along the south side of the game farm would allow selective placement of elk where they could be prevented access to Mud Creek.

Captive elk fecal matter and nutrient-enriched water could have a minor affect on surface water quality in Mud Creek and groundwater in the site vicinity, particularly if the stocking density reaches 20 elk. Wells are located on nearby properties, but are generally more than 100 feet deep.

Impacts to Vegetation Resources

Placing up to 20 adult elk on approximately 19 acres would require approximately 80,300 pounds of annual forage. The proposed game farm site could potentially supply about 85 percent of the annual elk forage requirement. However, elk foraging activity during the growing season would be expected to reduce plant productivity and actual forage production less than what is currently harvested for hay. Supplemental feed on a seasonal basis will be required to maintain 20 elk throughout the year.

Areas where elk are fed or handled may lose vegetative cover but this would be restricted to a small portion of the game farm including the banks of Mud Creek. Alteration of sedges along Mud Creek could be significant. Year-long grazing by captive elk could result in increased noxious weed abundance.

Impacts to Wildlife Resources

The proposed game farm is located within big game winter range. The site includes open pasture land that includes some deer and elk habitat. The proposed game farm site is not located along a migration corridor. Activity at the proposed game farm site would not influence bald eagle nesting behavior in this area. The proposed game farm does include Mud Creek. There are undocumented reports of transient bull trout (federally-listed as threatened) in Mud Creek; therefore, there is a potential for impacts to possible bull trout habitat from the elk trampling streambanks in the proposed game farm, and/or from increased sediment load to habitat farther downstream. Mud Creek also supports rainbow, cutthroat and brook trout fisheries.

There is a possibility wild deer could enter the proposed game farm especially during periods of drifted snow or deep snow accumulation in the winter. Deer have also been documented to crawl under game-proof fencing at sites dug by coyotes. Wild elk do pass through this area on occasion and may be attracted to the proposed game farm especially during the mating season. There is a possibility wild elk could enter the proposed game farm. Wild ungulates entering the proposed game farm and exposed to captive elk, would likely be destroyed rather than released back to the wild. These impacts may affect individuals but not populations. The lack of quality adjacent deer and elk habitat significantly reduces the chance of ingress.

Potentially, mountain lions, black bears, grizzly bears, and wolves could pass through this area (Thier, 1999). The proposed game farm is situated outside of coniferous forested habitat and the probability of large carnivores encountering the proposed game farm is low. The proposed game farm is also located immediately adjacent to the game farm owner's residence with a clear view of the entire fenceline, all of which should also reduce the likelihood of a predator entering the proposed game farm. Should a predator enter the enclosure, it likely would be detected quickly; live capture and removal of the trespassing animal is possible. However, this is not without risks to the animal, and the loss of a wolf or grizzly bear from the local populations in this area may be a cumulative impact to these species. In addition, bears that are chronic offenders may be purposely removed from the population either by lethal control, or by live capture and relocation.

The enclosure of approximately 19 acres with 8-foot high game-proof fencing would not alter the daily movement of the white-tailed deer living in this area. The proposed game farm is sufficiently small to allow deer easy access around the enclosure. The broad open and nearly level topography in this area would also contribute to deer moving freely through this area. The proposed game farm is not likely to cause impacts to bald eagles, peregrine falcons, gray wolves or grizzly bears.

Land Use/Community Impacts

The proposed game farm would be compatible with existing agricultural land uses. With respect to land use, no significant conflicts should result between game farm operation and the agricultural or residential areas. Potential effects of the game farm on adjacent property values are difficult to evaluate because some nearby property owners may like the idea of a game farm, whereas others would find it undesirable.

Risk/Health Hazards

There is a potential of captive elk to carry or become infected with a contagious wildlife disease or parasite such as tuberculosis, and then come in contact (through-the-fence, nose-to-nose, nose-to-soil, or ingress/egress) with livestock, wild deer, elk or other wildlife. The release of a contagious disease in the wild could severely impact native wildlife populations because white-tailed deer are present in the vicinity of the proposed game farm. It is also possible diseases and parasites carried by wild deer or elk could be introduced to the captive elk. The DoL has primary jurisdiction over animal health associated with game farms [87-4-408(2), MCA].

There is a potential for transmission of water-borne disease pathogens, if present, to be transported downstream from the game farm by Mud Creek; however, this is expected to be a minor risk because of game farm animal disease testing requirements, minimal stagnant water on site, and because surface water from the creek is not expected to be used for human consumption without treatment.

The route of chronic wasting disease (CWD) transmission is unknown; therefore, the potential for transmission by soil, water or other media cannot be determined at this time. CWD has been detected in game farm elk and has been a known wildlife disease for 30 years in Colorado and Wyoming. There is no evidence of CWD transmission to domestic livestock or humans.

Potential for disease transmission to domestic livestock and wildlife from game farm animals is also mitigated through DoL disease testing requirements. All animals to be placed on this game farm are required to be tested for tuberculosis at the time of import, purchase and/or transportation to the game farm. A test for brucellosis is required for all game farm animals that are sold or moved within the state, and is required for all game farm animals imported into Montana. Montana is presently a tuberculosis-free and brucellosis-free state (i.e., these diseases have not been diagnosed in domestic livestock).

If tuberculosis or brucellosis were to be transmitted from captive elk to wild deer and elk, hunters field dressing wild deer or elk would be subject to some risk of infection. Veterinarians and meat cutters working with diseased game farm animals are at risk of becoming infected with brucellosis or tuberculosis. Routine brucellosis and tuberculosis testing requirements for game farm animals offer a measure of surveillance to minimize risk to human health.

Aesthetics/Recreation

The visual character of the area may change as a result of the 8-foot high fence which would be constructed around the perimeter of the game farm. This impact would probably be most directed at persons residing and/or recreating in the vicinity of the proposed game farm. The impact is expected to be minor and most likely short term since fences are a common sight in the area.

Cumulative Effects

The Proposed Action would result in potential impacts that are individually minor and significant, but not cumulatively significant. Cumulative effects from past, present, and reasonably foreseeable activities in all resource areas would be similar to those described for the Proposed Action. Increased time and expenses for the entire FWP region to license and monitor this game farm are relatively minor; however, cumulatively, the requirement to monitor all game farms in the region could become considerable over time.

REQUIRED STIPULATIONS AND MITIGATIONS

The following stipulation is imposed by FWP for the Kickin Bull Ranch game farm and is designed to mitigate significant impacts identified in the EA to below the level of significance:

- (1) *Monitor the game farm perimeter fence on a weekly basis and immediately after major snow, rain, and wind events to ensure fence integrity is maintained.*

The stipulation listed above is imposed to mitigate potentially significant risk to fish and wildlife posed by the proposed game farm and the integrity of the perimeter fence. If fence integrity becomes a problem, adjustment of fence requirements to include double fencing, electrification or increased height may become necessary. The Draft EA requirement of daily fence monitoring has been modified above to allow for weekly fence monitoring because of the minimal number of trees located near the fence line, and because the game farm applicant lives next to the game farm and can see the entire fence line from the residence.

The following mitigation measures have been included by the game farm applicant as part of the Proposed Action, and are repeated here as required mitigations because of their importance in reducing potentially significant impacts to below the level of significance:

- (2) *Grazing of domestic elk along the banks of Mud Creek and the fish pond will be controlled by one or more of the following mitigating measures: herd rotation, allowing only young animals to graze along the creek, limiting elk numbers, and/or electric fencing.*
- (3) *There will be no fee shooting by the public at the Nadon Kickin Bull Ranch game farm.*

Required mitigation (2) above will prevent significant impacts to the banks of Mud Creek and allow for the maintenance of a vegetation filter zone along the creek to minimize increases in sediment and nutrients to Mud Creek from the game farm site. If such mitigation measures do not adequately protect the banks of Mud Creek, additional measures may be imposed by FWP and/or the Montana Department of Environmental Quality (DEQ). Required mitigation (3) will protect the public from potential risks that would be associated with fee shooting at the site.

RECOMMENDED MITIGATION MEASURES

The following mitigation measures address minor impacts identified in the EA that are likely to result from the Proposed Action.

- Maintain a reasonable stocking rate within the game farm enclosures to minimize changes in soil structure and potential increases in runoff and erosion from disturbed ground. A reasonable stocking rate would maintain vegetative cover in pasture condition that minimizes soil erosion from major precipitation events and snowmelt.
- Due to the potential for surface crusting, exposed soils should be revegetated promptly.
- Quickly incorporate waste into soil by plowing or disking. Spread waste during cool weather or in the morning during warm, dry weather.
- Properly dispose of animal carcasses according to county solid waste regulations. Carcasses and fecal matter should not be disposed of in or adjacent to water bodies, roads or ditches.
- Control surface water runoff from the proposed game farm site, if necessary, by employing best management practices (BMPs) where runoff could exit the pasture and enter Mud Creek. The BMPs may include earthen berms, vegetative buffer zones, straw bale dikes, or silt fences.
- Monitor the proposed game farm site for invasion of noxious weeds and treat affected areas in a timely manner by implementing a noxious weed control program.
- Provide supplemental feed and minerals to the elk on a seasonal basis to reduce excessive grazing on preferred pasture plants.
- Store hay, feed, and salt away from exterior fences or enclosed in bear-resistant containers or buildings.
- Feed game farm animals at interior portions of the enclosure and not along the perimeter fence. Due to the presence of both grizzly and black bears in this area, it is extremely important to limit the exposure of game farm animal feed to bears.

- During winters of exceptional snow cover, removal of snow on either side the of the enclosure fence may be required to prevent ingress and egress.
- Stock a minimal number of bull elk to reduce bugling during the mating season.
- Mitigate impacts to cultural resources by stopping work in the area of any observed archeological artifact. Report discovery of historical objects to the State Historic Preservation Office in Helena.

ERRATA SECTION

This section of the Final EA contains specific corrections to the Draft EA that are presented as a result of received public comments (see following section). The Final EA incorporates the Draft EA with the following corrections. In addition, the required stipulations/mitigations and recommended mitigation measures listed in this Final EA supersede the stipulations and mitigations contained in the Draft EA.

Modified Required Stipulation:

The Draft EA requirement of daily fence monitoring has been modified to allow for weekly fence monitoring because of the minimal number of trees located near the fence line and because the licensee lives adjacent to the game farm and can see the entire fence line from the residence.

Required Stipulation Moved to Required Mitigation:

The Draft EA requirement to install an internal game farm fence along both sides of Mud Creek has been eliminated; however, a required mitigation has been added that reiterates the applicant's proposal to minimize any impacts to Mud Creek.

Refer to the "*Required Stipulations and Mitigations*" section in this Final EA for the revised stipulations and mitigations.

SUMMARY OF PUBLIC COMMENTS AND FWP RESPONSES

Public comments for the Nadon Kickin Bull Ranch Draft EA were accepted from February 11 through March 4, 1999. FWP received seven public comment letters during that time. Substantive comments and questions are reproduced (paraphrased) below with FWP responses. Public comments are considered substantive if they relate to inadequacies or inaccuracies in the analysis or methodologies used in the Draft EA, or identify new impacts or recommend reasonable new alternatives or mitigation measures; or involve disagreements or interpretations of impact significance. Comments which express personal preferences or opinions on the proposal rather than on the evaluation itself are included but are not specifically addressed.

Letter Comment 1:

The game farm applicant's house and outbuildings cover about 5 acres, leaving about 15 acres of elk pasture, not 20 acres as stated in the draft EA.

Response L-1:

Upon further review, it has been determined the game farm enclosure area (i.e., elk pasture) is approximately 19 acres. The total lot area of 20.8 acres has been reduced by the following: the residence, lawn and outbuildings, hillside in the northeastern portion of the site, and all proposed and stipulated fence setbacks.

Letter Comment 2:

There will be more than a minor impact on air quality from having 20 elk in a 15-acre pasture.

Response L-2:

The proposed stocking rate should not pose an odor problem. Odors associated with the proposed stocking rate are expected to be less than a comparable number of cattle in the same pasture. If odor becomes a problem, recommended mitigation measures are stated in Part II (page 19) of the Draft EA.

Letter Comment 3:

There will not be enough feed to supply 85% of the annual elk forage requirements; there are too many elk proposed for such a small area.

Response L-3:

The amount of elk forage produced by the elk pasture has been recalculated as approximately 63,400 pounds per year based on the revised game farm enclosure area of approximately 19 acres (10 acres irrigated and 9 acres nonirrigated). The annual forage consumption of 20 adult elk would be approximately 80,300 pounds, which indicates the proposed game farm site could potentially supply about 80% of the annual elk forage requirement. Therefore, as stated in Part II (page 24) of the Draft EA, supplemental feed would be required on a seasonal basis to maintain 20 elk throughout the year. Also stated on page 24 of the Draft EA, elk foraging activity during the growing season would be expected to reduce plant productivity, and actual forage production would be less than what is currently harvested for hay.

Letter Comment 4:

Mud Creek may become an elk wallow, so fence both sides approximately 20 yards from the creek.

Response L-4:

The game farm applicant has proposed several mitigation measures to reduce potential impacts to Mud Creek, including wallowing in wet areas near the creek. This will allow a vegetative filter along the creek to trap increased sedimentation that may occur from the remaining game farm area. See the "Required Stipulations and Mitigations" section in this Final EA.

Letter Comment 5:

Bull elk should be contained during the rut to minimize noise caused by their bugling.

Response L-5:

The Draft EA concluded that noise generated during the rut would be relatively minor because of the limited number of bull elk expected in the game farm and the limited rut period of approximately 1 month during each year. A recommended noise mitigation measure related to bull elk bugling is included in Part II (page 29) of the Draft EA. This mitigation measure consists of minimizing the number of bull elk in the game farm to reduce bugling during the rut.

Letter Comment 6:

It costs the DoL, FWP and sportsmen money to keep these farms running.

Response L-6:

Increased time and expenses spent by FWP and DoL personnel for game farm monitoring was acknowledged in the Draft EA (page 36). For this single game farm site, increased time and expenses for the entire FWP region are relatively minor; however, cumulatively, the requirement to monitor all game farms in the region could become considerable over time. Long-term implications of these effects are difficult to quantify; however, regulations for the game farm program, including fees, are established by the state legislature and in rule-making procedures.

Letter Comment 7:

The quarantine area (located in the northwest portion of the game farm) is too close to my property and livestock.

Response L-7:

The quarantine area would be setback 8 feet from the western property line. DoL quarantine area fence construction requirements include solid walls or double-fencing which should provide adequate protection from potential disease transmission to neighboring livestock.

Letter Comment 8:

Concern for potential impacts to the ponds located in the game farm enclosure with respect to bank erosion and sedimentation to Mud Creek. Also concerned about potential of water-borne disease pathogens and location of any stagnant water.

Response L-8:

The proposed density of up to 20 elk on about 19 acres is not expected to result in significant impacts to water resources. Potential impacts to water resources are described in the Draft EA on pages 21-23. If significant vegetation losses occur on the game farm, the Montana Dept. of Environmental Quality (DEQ) could require a concentrated animal feeding operation (CAFO) permit be obtained, which requires control of runoff water and the receipt of a discharge permit. If any water quality problems occur or are suspected as a result of the game farm operation, the DEQ has jurisdiction over water quality issues and could require the game farm licensee investigate and/or correct the problem(s). The game farm licensee must adhere to relevant water quality standards for Montana.

Game farm elk would utilize the newly constructed elk watering pond located west of the fish pond for purposes of drinking and wallowing. As a result, any vegetation cover along the edge of the pond would be reduced and the pond bank would be subject to increased erosion and sedimentation to the pond. This pond, however, is not flow through and therefore would not have an adverse effect on Mud Creek. The elk likely would utilize this pond rather than the fish pond because the fish pond is relatively deep and has steeper side banks. Any increased sedimentation in the fish pond likely would settle in the pond before flowing to Mud Creek.

As stated in Section 8 (*Risk/Health Hazards*) of the Draft EA (pages 32-33), the potential risk from transmission of water-borne disease pathogens out of the game farm by Mud Creek is expected to be minor because of the disease testing requirements of game farm animals, the moderate density of game farm elk in the enclosure, and lack of much stagnant water on the game farm site. While water can provide a favorable environment for brucellosis survival, the dilution factor associated with running water (such as with Mud Creek) makes it an unlikely means of interherd transmission (Nielson and Duncan, 1990). The new elk watering pond recently constructed by Mr. Nadon would not be flow-through (i.e., no direct discharge to Mud Creek).

Letter Comment 9:

Concerns regarding use of water from Mud Creek, the fish pond and the 160-foot deep well for elk watering purposes; existing water rights may not allow such water use.

Response L-9:

Thank you for the water rights information for the flow-through fish pond on the Nadon property. The current water right (#74457-S76D) for the flow-through fish pond is for nonconsumptive use; therefore, it would be the responsibility of Mr. Nadon to acquire a consumptive water right for any water to be used for elk watering. This water right would be obtained from the Montana Department of Natural Resources and Conservation (DNRC). Mr. Nadon could also fence off the fish pond to prevent game farm elk from accessing this pond.

The new pond Mr. Nadon has constructed to the west of the fish pond is for purposes of elk watering. This pond would receive water from Mud Creek via the fish pond and is not flow-through (i.e., no return flow to Mud Creek). It is possible Mr. Nadon's current water right (#76D-W016277) for Mud Creek (0.43 cubic feet per second and 1.0 acre-feet per year) would suffice for the elk watering pond assuming the DNRC would consider elk as livestock; this water right has designated uses for irrigation and livestock.

The well located on the Nadon property that has been proposed for providing water to the elk (water right #72095-G76D) is designated for domestic use at a rate of 20 gallons per minute up to 1.50 acre-feet per year. Therefore, Mr. Nadon would be responsible for changing this water right to allow for elk watering, or obtain a separate, new water right.

Letter Comment 10:

Crop and pastureland bound the site on the west as well as the east.

Response L-10:

Comment noted. The oversight occurred because the Bureau of Land Management land use maps used to develop Figure 2 (which appears as page 4 of the Draft EA) did not indicate crop and pastureland to the west of the game farm site.

Letter Comment 11:

Where would Mr. Nadon dispose of excess fecal material and waste feed; in a landfill or on his property?

Response L-11:

As stated in the Draft EA (page 28), the applicant could remove excess fecal material and waste feed from the game farm and deposit at an approved site not likely to be used by humans, and domestic and wild animals. The waste material must be disposed of according to county solid waste regulations and may include a licensed landfill facility.

Letter Comment 12:

No licenses should be granted for any new game farms in Montana until we have confirmed CWD does not exist in Montana; the threat of CWD caused by nose-to-nose contact and ingress/egress is substantial.

Response L-12:

Comment noted. CWD has not been documented in Montana game farm animals or wildlife. It has been documented in wildlife in Colorado and Wyoming, and in seven game farm herds in three states and one Canadian province. Montana now has two suspect game farm herds identified through epidemiological studies as trace-back herds for a CWD positive animal in Oklahoma. This association (trace-back status) does not imply CWD has been identified on any Montana game farms. The Montana Department of Livestock has primary jurisdiction over animal health associated with game farms [87-4-408(2), MCA].

On November 11, 1998, the Montana Board of Livestock issued an emergency rule which prevents wild or captive cervids from being imported or transported from a geographic area or game farm where CWD is endemic or has been diagnosed. Any imported animals must have resided in the exporting herd for a minimum of 12 months immediately prior to importation, or a satisfactory and complete documented animal movement history from (birth) farm or origin must be furnished. Surveillance of Montana game farm animals for CWD will be addressed in upcoming rules drafted by DoL.

Letter Comment 13:

We would encourage the department to perform an EIS with regard to disease issues; the license should be denied until it is properly documented that CWD does not exist in Montana game farms.

Response L-13:

Comment noted.

Letter Comment 14:

The 10-foot setback along the north side of Mud Creek would place the fence on top of the fish pond dam, leaving it hard to manage.

Response L-14:

FWP has eliminated the Draft EA stipulation requiring a fence along both sides of Mud Creek. Rather, a required mitigation has been added to this Final EA that reiterates your plan to minimize impacts to Mud Creek. Refer to the "Required Stipulations and Mitigations" section in this Final EA for the revised stipulations/mitigations.

Letter Comment 15:

If both sides of Mud Creek are to be fenced, I would have no practical way of caring for the strip of land between the stipulated fence and Mud Creek, except to graze some sheep or cattle in this area. This section would become a fire hazard in late summer, early fall and the following spring.

Response L-15:

The vegetation along Mud Creek, if not allowed to be grazed by the game farm elk, would be relatively thick, but should be similar to existing conditions because the area has not been grazed for a couple of years. This thick riparian vegetation will provide a good natural filter for any increased erosion, sedimentation, and nutrient loading that may occur in the game farm, thus protecting the quality of water in the creek. The potential for this strip of vegetation along the creek to be a fire hazard is not believed to be significant because it is narrow, relatively moist for much of the year, and would be surrounded by grazed land. In addition, an ignition source for a fire likely would be lightning which would have a low likelihood of starting a fire on this narrow strip of land. Controlled burning during periods when vegetation is not dry is also a method of reducing fire hazard potential in the area along Mud Creek.

Letter Comment 16:

The northwest section of the portion of Mud Creek which flows across the proposed game farm is shallow and little, if any, grass is available for fish cover.

Response L-16:

Comment noted. The water depth in the northwest portion of Mud Creek which flows across the proposed game farm may vary seasonally. The absence of grass cover along this section may reduce the residence time in this area for fish which inhabit Mud Creek, but probably will not stop them from using the area as a travel route or occasional feeding.

Letter Comment 17:

I agreed to a property line setback (8-feet along the western and southern boundary, 4-feet along the eastern boundary) which would lower my grazing capacity. Now you are asking for more (i.e. internal game farm fencing along both sides of Mud Creek). We might have to choose between one or the other.

Response L-17:

The property line setback along the western, southern and eastern boundaries provides for an access pathway to work on the outside of the fence, provides for an area to remove excessive snow accumulations, and decreases the potential for disease transmission between the captive elk and neighboring livestock.

Letter Comment 18:

A documented study is needed to verify Bull Trout exist in the portion of Mud Creek which flows across the proposed game farm.

Response L-18:

Comment noted. As stated in the "Fish/Wildlife" section of the Draft EA (pages 26-28), there are undocumented reports of transient bull trout (federally-listed as threatened) in Mud Creek, as well as rainbow, cutthroat, and brook trout. As stated in the "Vegetation" section of the Draft EA (pages 24-25), maintaining a protected vegetative strip along Mud Creek also will filter sediment from runoff water that may enter the creek from the game farm site. Increased sediment load to the creek would be a detriment to trout habitat in general.

Verbal Comment 1 by game farm applicant:

I anticipate an average of 10 to 12 elk on the game farm at any one time, although the license (if approved) would allow up to 20 elk.

Response V-1:

Comment noted.

EA CONCLUSION

MEPA and game farm statutes require FWP to conduct an environmental analysis for game farm licensing as described in the Introduction of this Summary. FWP prepares EAs to determine whether a project would have a significant effect on the environment. If FWP determines a project would have a significant impact which could not be mitigated to less than significant, FWP would prepare a more detailed EIS before making a decision.

Based on the criteria evaluated in this EA, an EIS would not be required for the Nadon Kickin Bull Ranch Game Farm. The appropriate level of analysis for the Proposed Action is a mitigated EA because all impacts of the Proposed Action have been accurately identified in the EA, and all identified significant impacts would be mitigated to minor or none.

ANALYSIS OF IMPACT ON PRIVATE PROPERTY

Montana game farm statutes (87-4-476, MCA) require game farm licenses may be denied or issued with stipulations to prevent unacceptable threat of escape of captive game farm animals. MEPA requires FWP to identify and analyze environmental impacts of the Proposed Action and potential mitigation measures. MEPA, as revised by Senate Bill 231 of 1995, also requires agencies to evaluate the impact on private property of regulatory actions, such as denial of a permit or establishment of permit conditions (75-1-201, MCA). The Environmental Quality Council (EQC) has established procedural guidelines to implement these requirements. The analysis provided in the Draft EA was prepared in accordance with implementation guidance issued by the EQC.

In addition, the Private Property Assessment Act (2-10-101, MCA, *et seq.*) requires agencies to determine whether proposed actions by the State of Montana have "taking or damaging implications", such as to constitute a deprivation of private property in violation of the United States or Montana constitutions and, if so, to perform an impact assessment to determine the likelihood a state or federal court would hold the action is a taking or damaging, to review alternatives, and to determine the estimated cost of compensation. In accordance with the Act, the attorney general has prepared guidelines, including a checklist, to assist agencies in identifying and evaluating actions with taking or damaging implications.

The Draft EA contains FWP's completed checklist with respect to the required stipulations and mitigations, and has found the preferred alternative does not have taking or damaging implications and an impact assessment is not required.

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AND RESPONSES TO COMMENTS**

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